

FIG. 1A

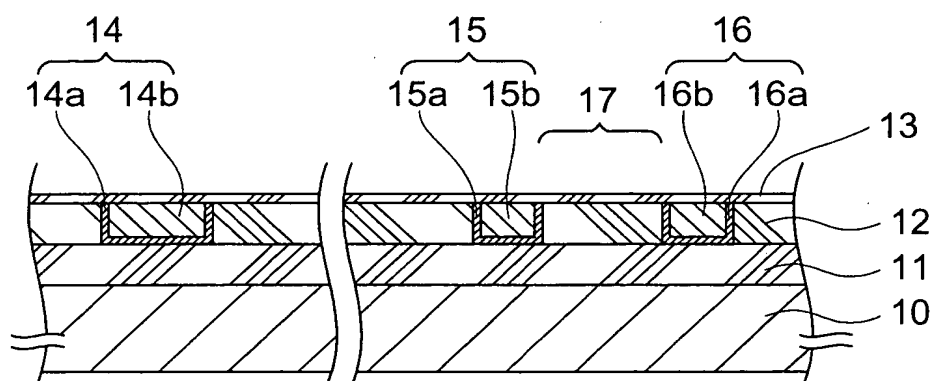
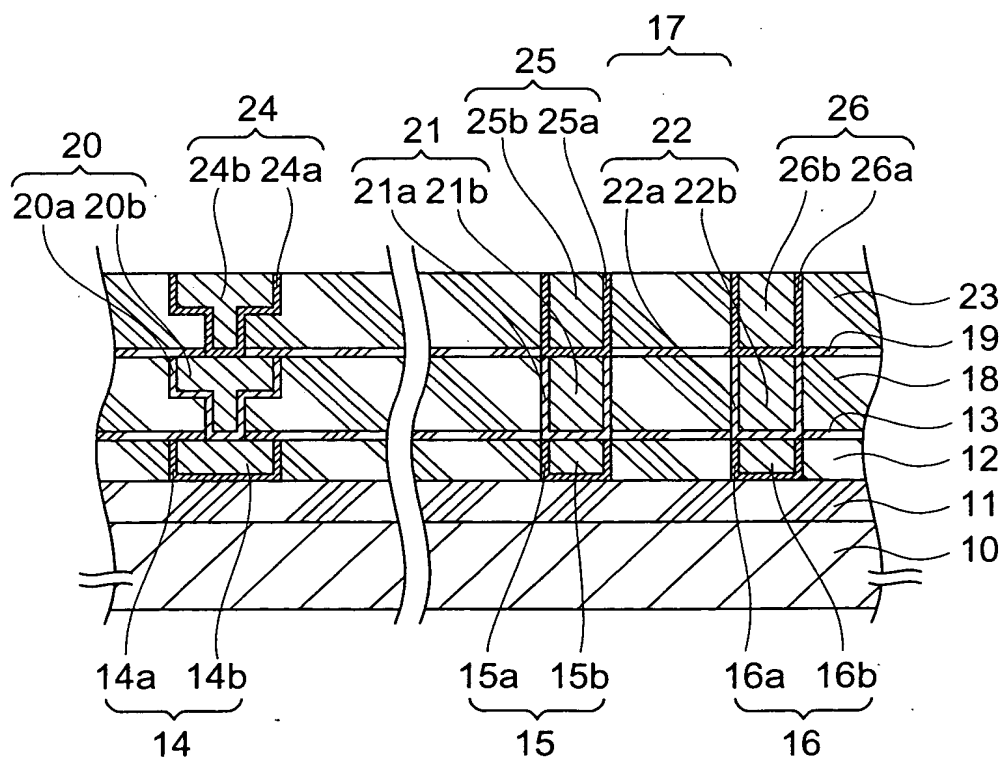


FIG. 1B



A detailed cross-sectional view of a semiconductor device. The device consists of a substrate (10) with a series of horizontal layers. A central region (17) is defined by a vertical boundary. On the left side, there is a series of horizontal layers (14a, 14b) and a vertical structure (20a, 20b). In the center, there is a vertical structure (21a, 21b) and a horizontal layer (24b, 24a). On the right side, there is a vertical structure (22a, 22b) and a horizontal layer (26b, 26a). The device is divided into three main sections: 14, 15, and 16. The layers are labeled with various numbers: 10, 11, 12, 13, 14a, 14b, 15a, 15b, 16a, 16b, 17, 20a, 20b, 21a, 21b, 22a, 22b, 23, 24a, 24b, 25a, 25b, 26a, 26b, 27.

A detailed cross-sectional view of a semiconductor device. The device consists of a substrate (10) with multiple layers. A base layer (11) is on top of the substrate. Above this, there are several layers of different materials, indicated by different hatching patterns. A central region (15) is defined by a vertical wall (15a, 15b). To the left of this central region is another structure (14) with a similar vertical wall (14a, 14b). To the right is a third structure (16) with a vertical wall (16a, 16b). The top surface of the device features a series of rectangular openings or recesses (20, 21, 22) and corresponding raised regions (24, 25, 26). The regions are further subdivided into sub-regions (e.g., 20a, 20b; 24a, 24b; 25a, 25b; 26a, 26b). A central vertical channel (17) is also present. Various other layers and interfaces are labeled with numbers 10 through 28.

FIG. 3A

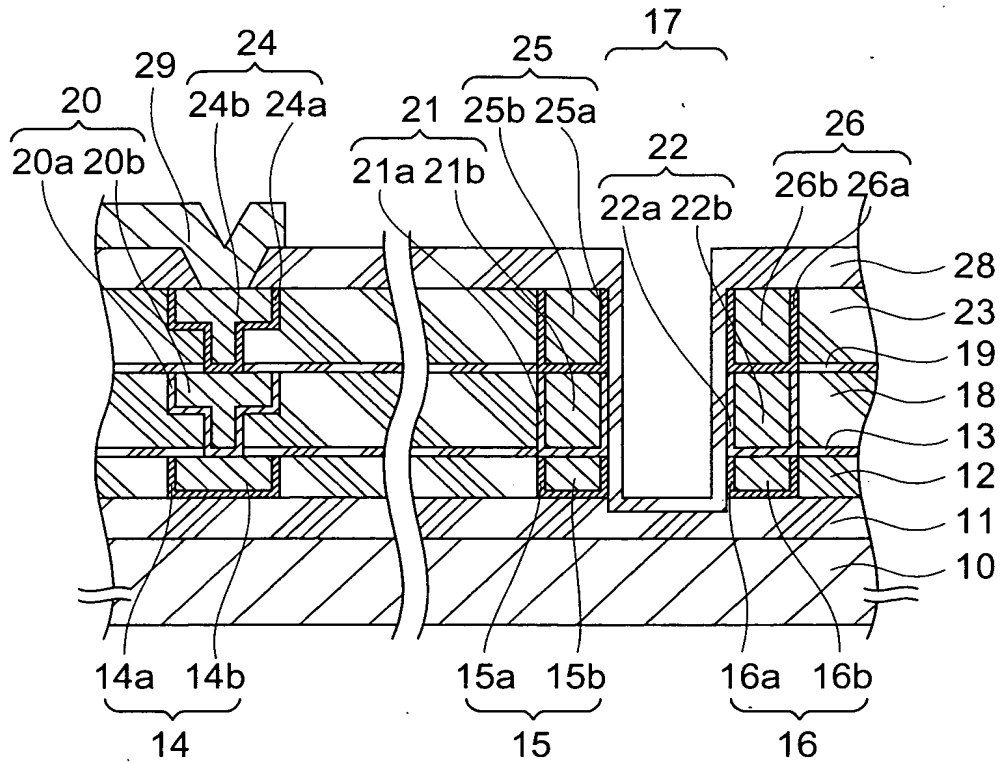


FIG. 3B

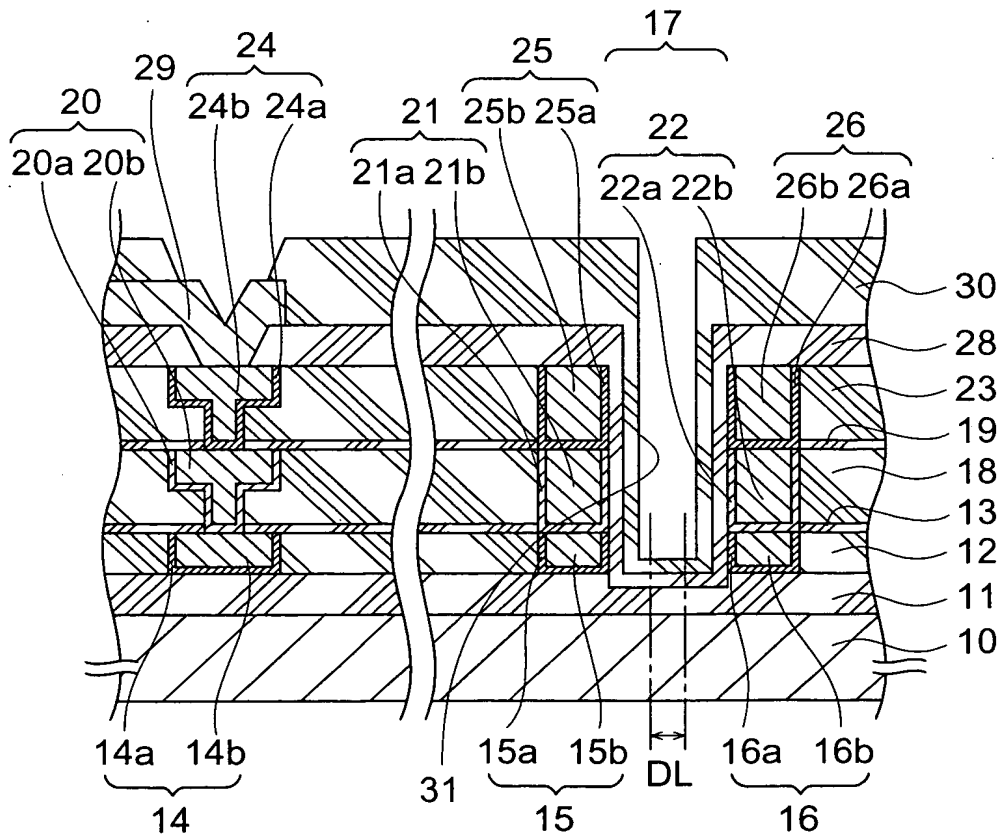
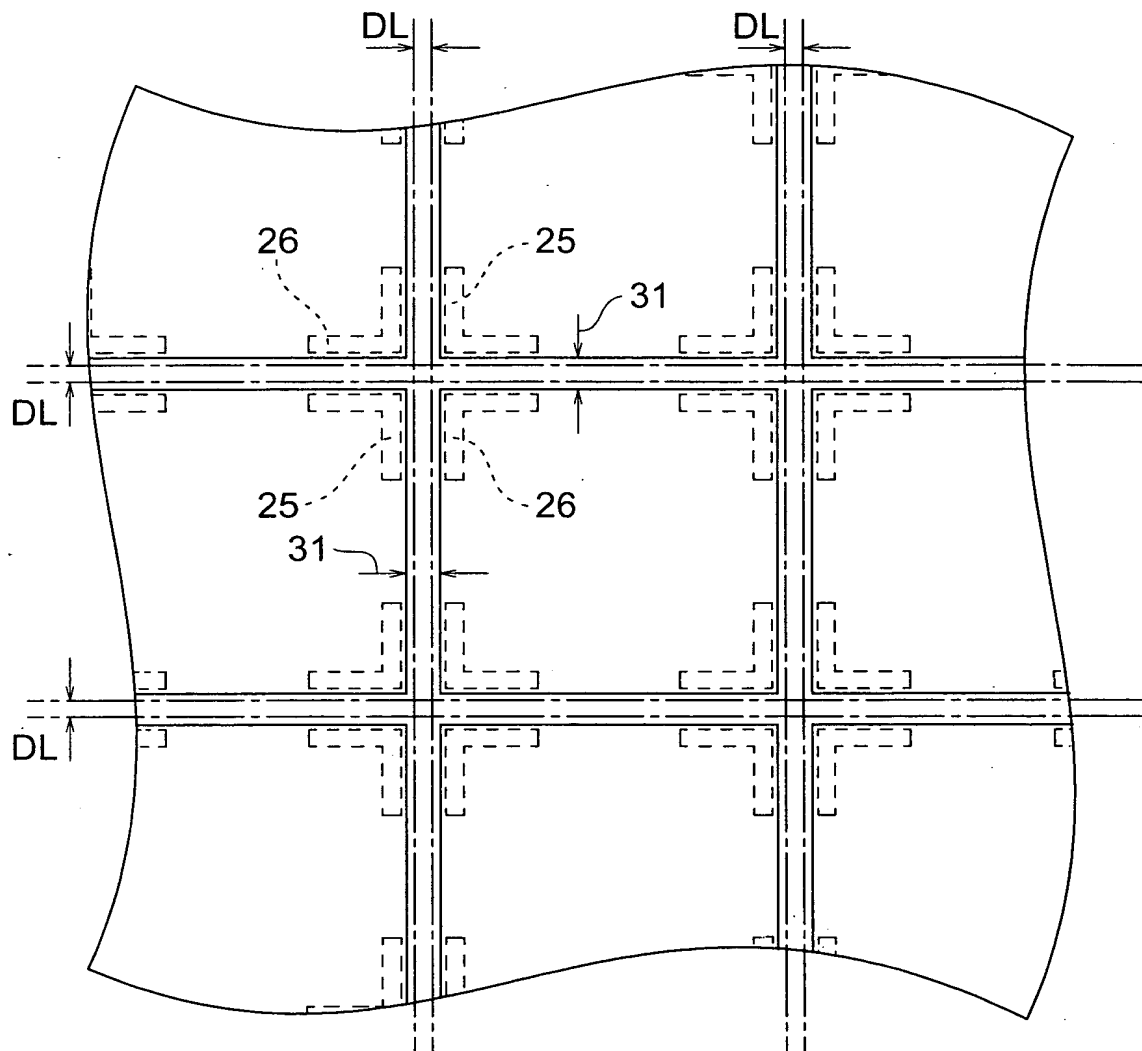


FIG. 4



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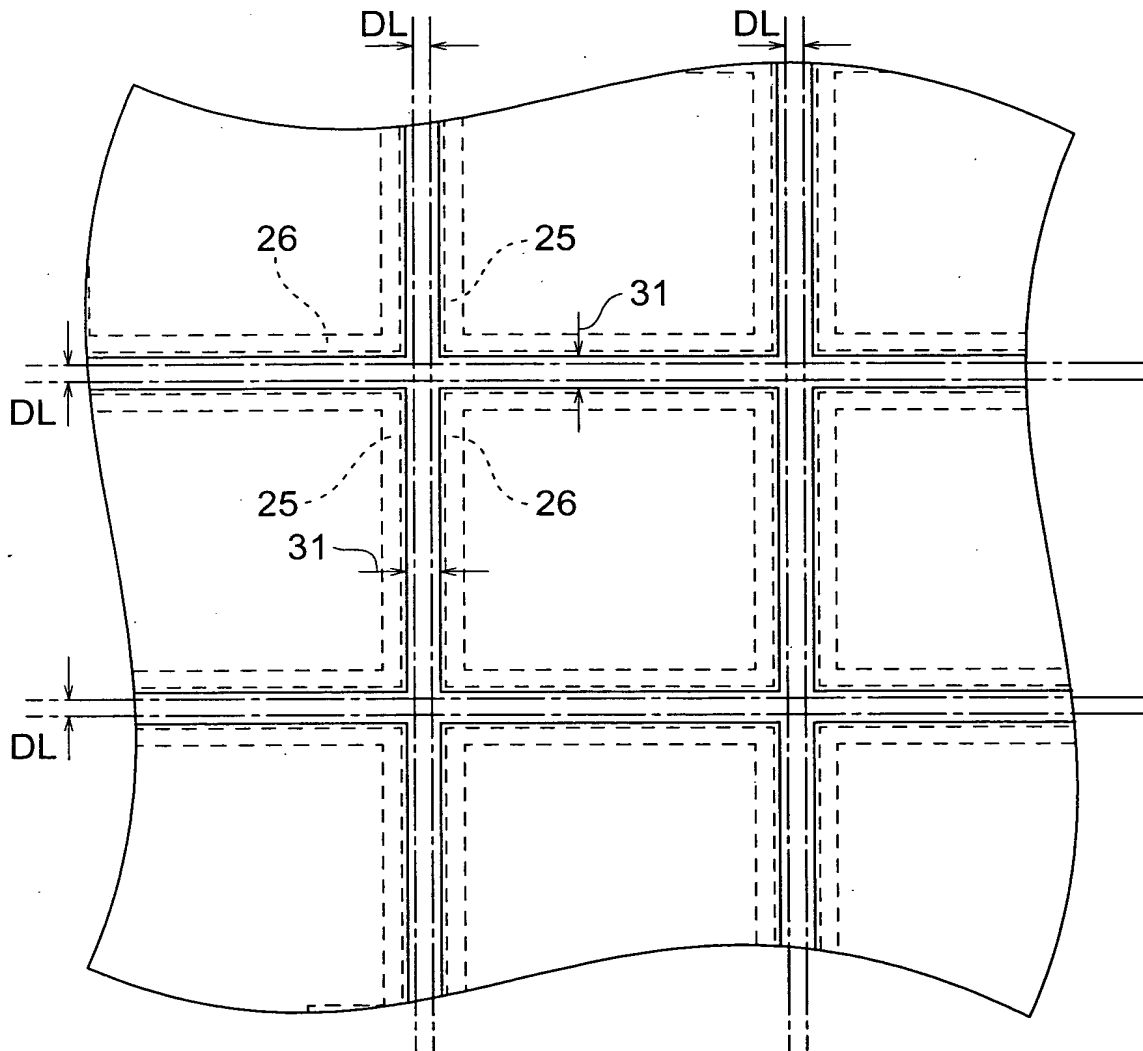


FIG. 6

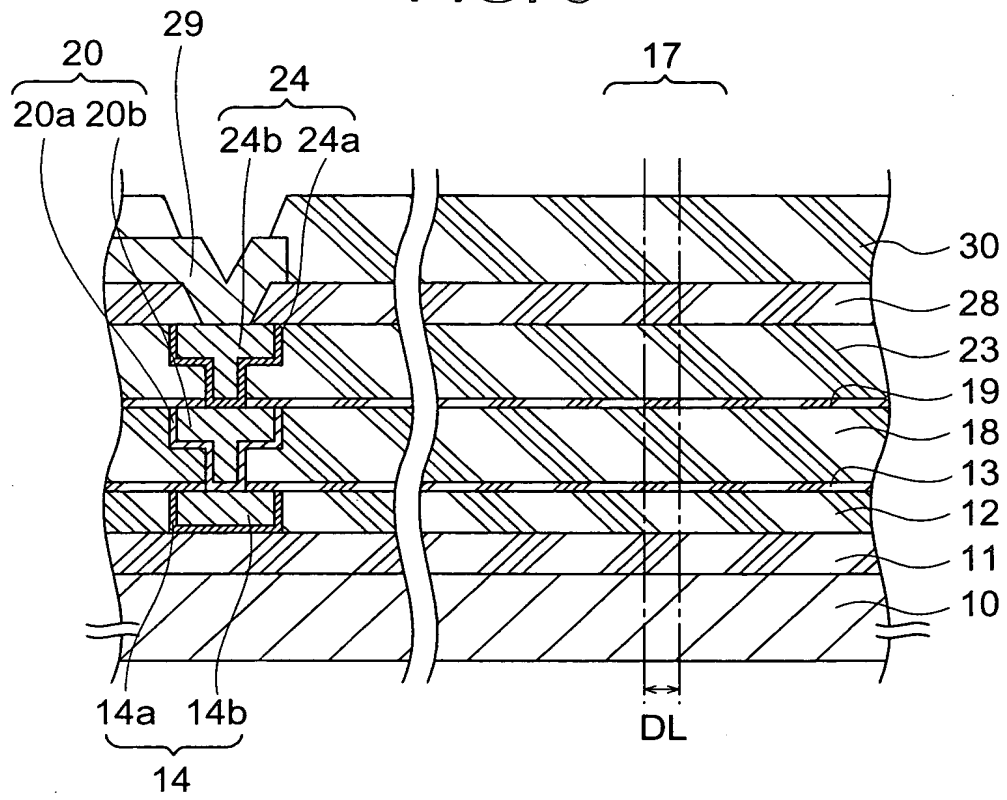


FIG. 7

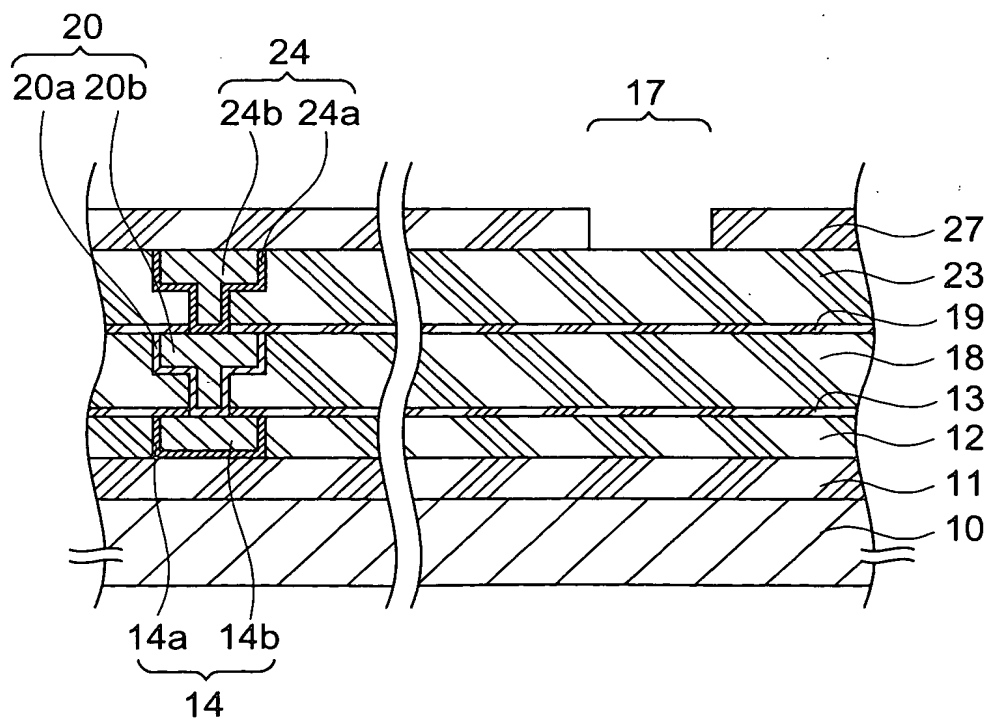


FIG. 8

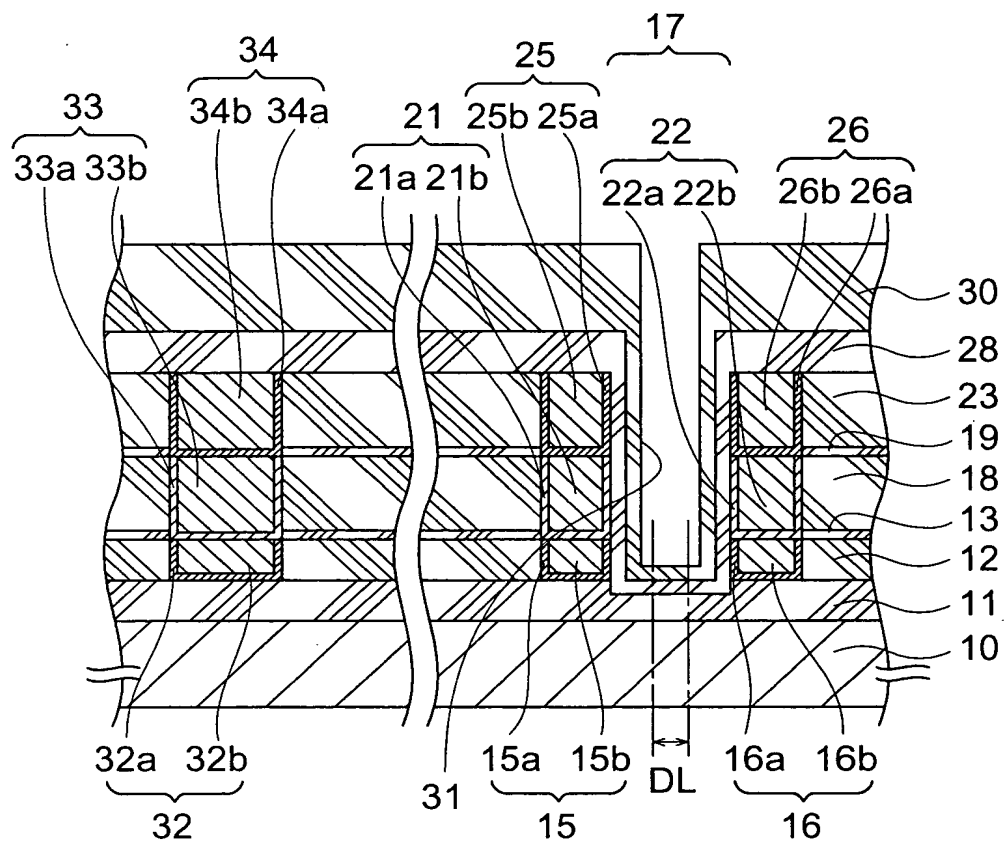


FIG. 9

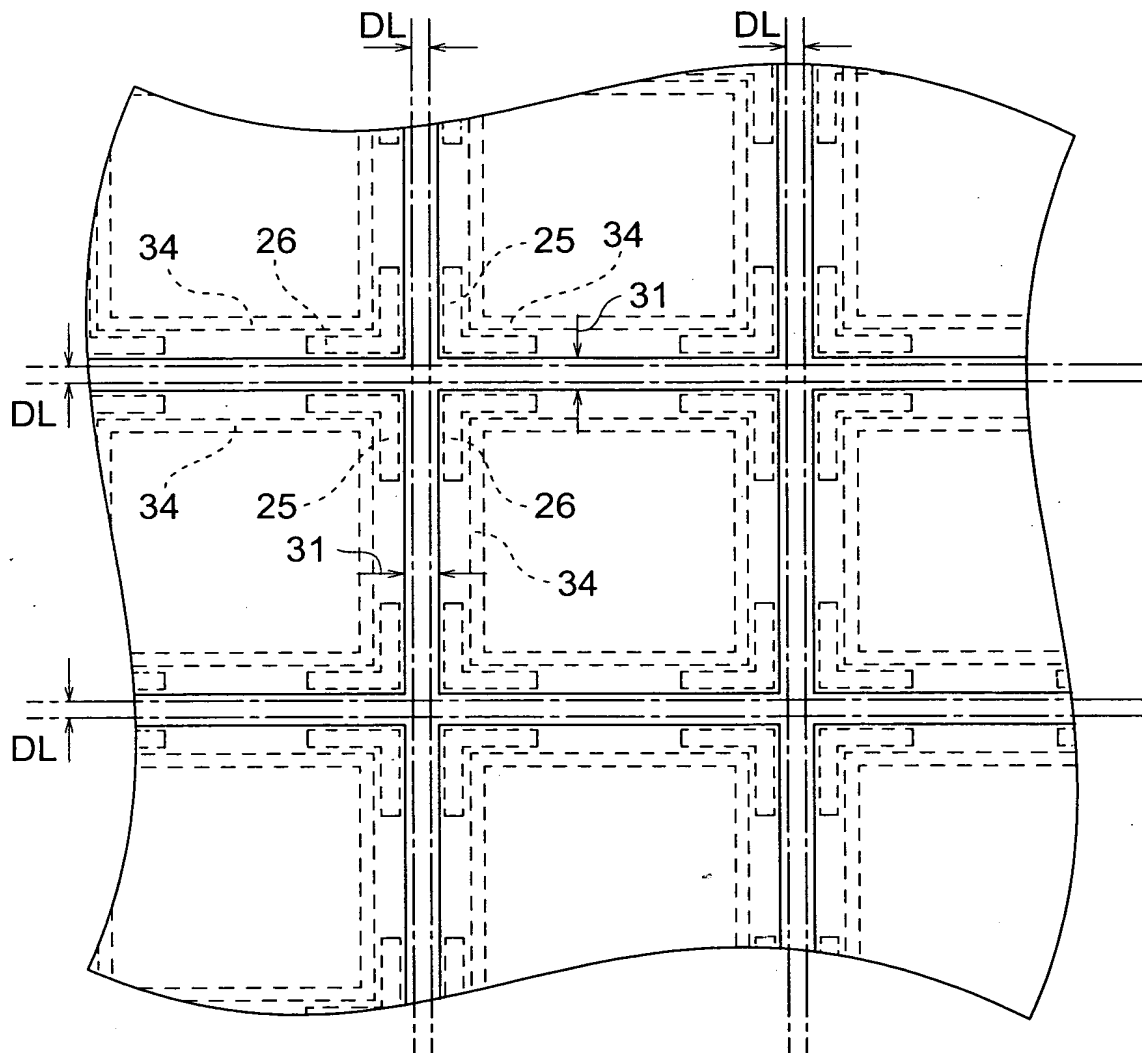


FIG. 10A

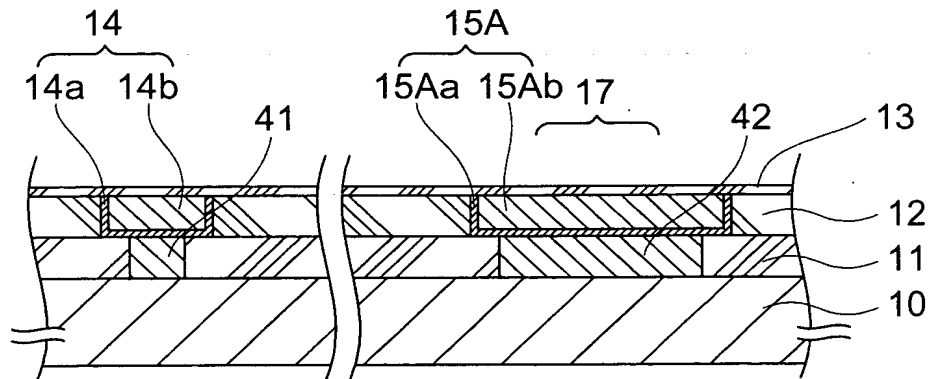


FIG. 10B

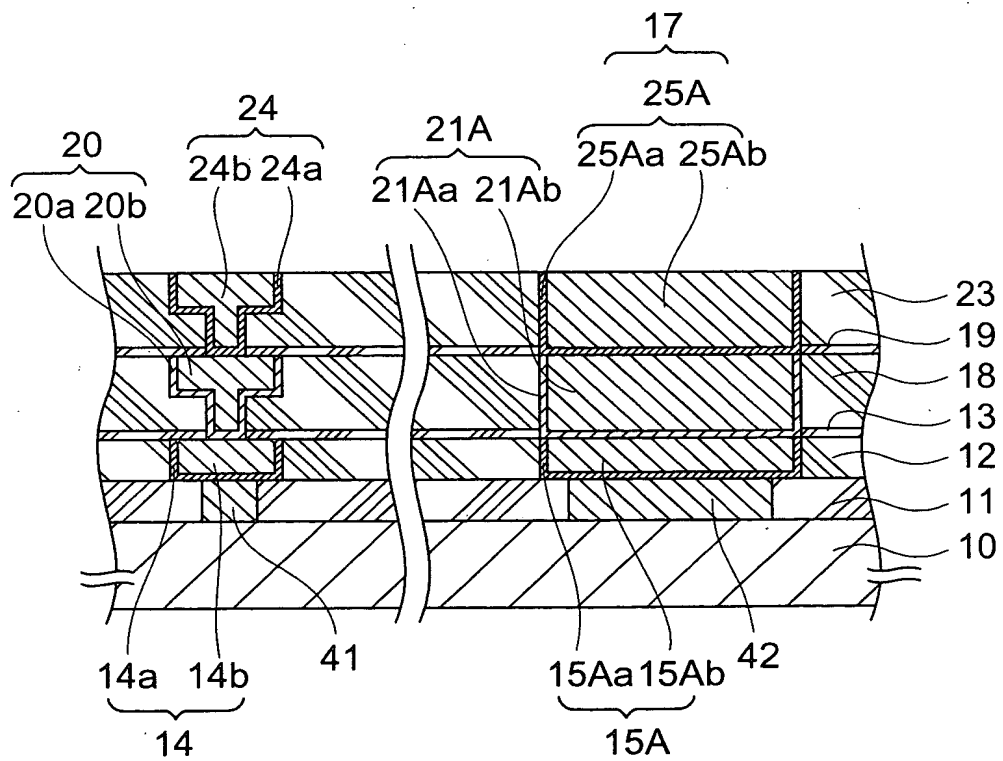


FIG. 11A

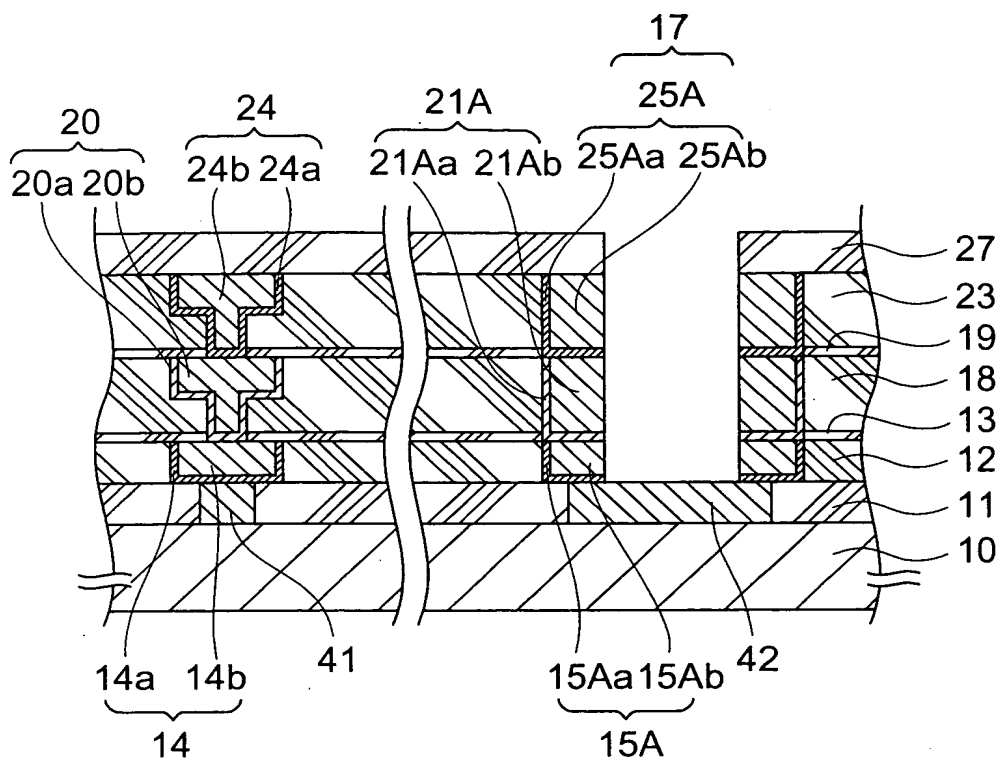
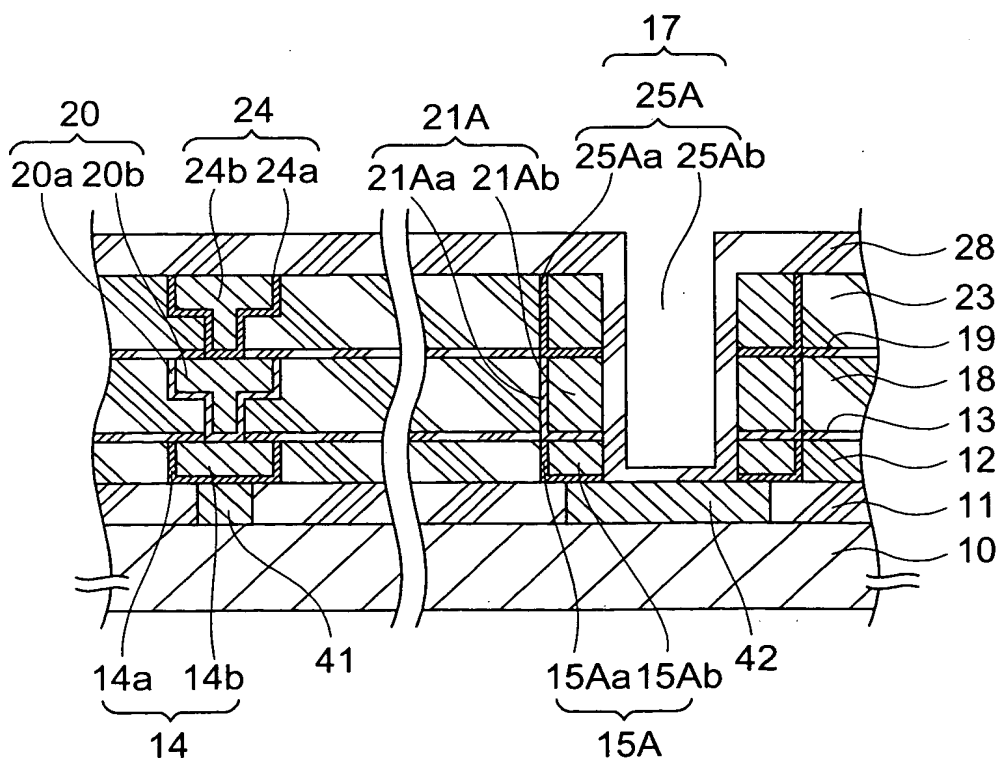


FIG. 11B



[illegible]

This cross-sectional diagram illustrates a complex layered structure. At the base are layers 10 and 11. Above them is layer 12, which contains features 14a and 14b grouped as 14. Layer 13 follows, containing elements 15A and 15Ab grouped as 15A, with a dimension DL indicated between two vertical structures. Layer 18 is above 13, followed by layer 19. Layer 23 contains a central feature 31. Layer 28 is above 23, and the topmost layer is 30. Various other components like 20, 24, 21A, and 25A are shown as specific structural elements or regions within these layers.

FIG. 13

